

SCINTILLATOR ARRAYS FOR RADIATION DETECTORS  
AND METHODS OF MANUFACTURE

ABSTRACT OF THE DISCLOSURE

A pixilated scintillator array for a radiation detector of an imaging system includes a plurality of scintillator pixels arranged side by side in an array. The scintillator pixels are separated from adjacent scintillator pixels by gaps. Each scintillator pixel includes a top surface, a plurality of side surfaces, and a first layer covering the top surface and the side surfaces of each scintillator pixel. The first layer is formed from a smoothing coating. A second layer formed from a reflective metal coating covers the first layer, and a third layer formed from a barrier coating covers the second layer.